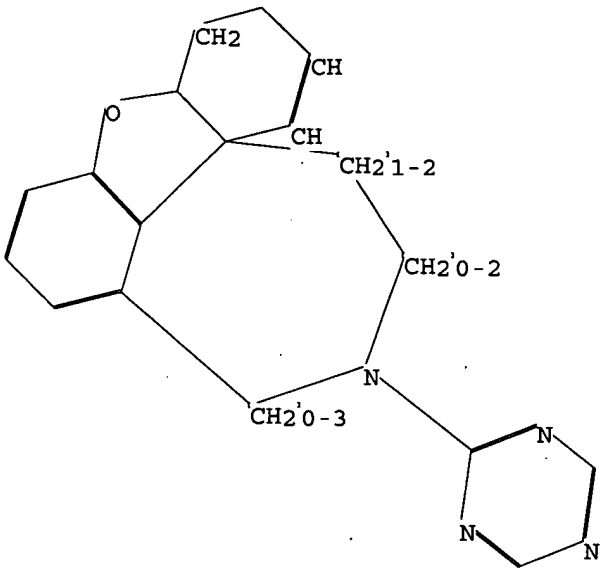
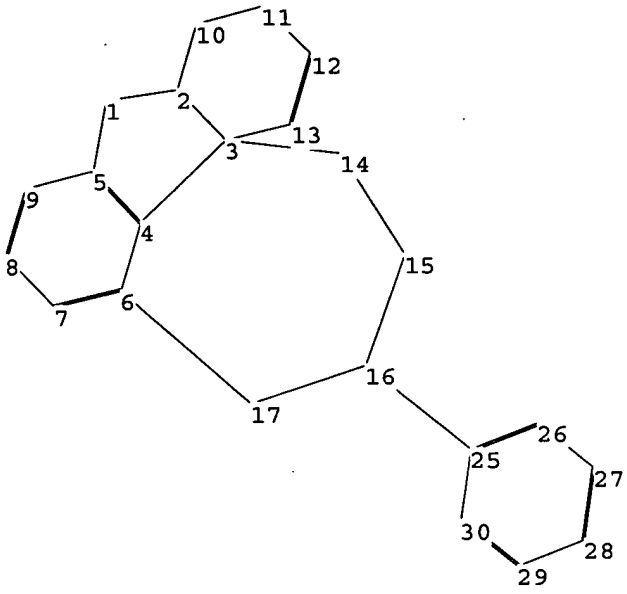


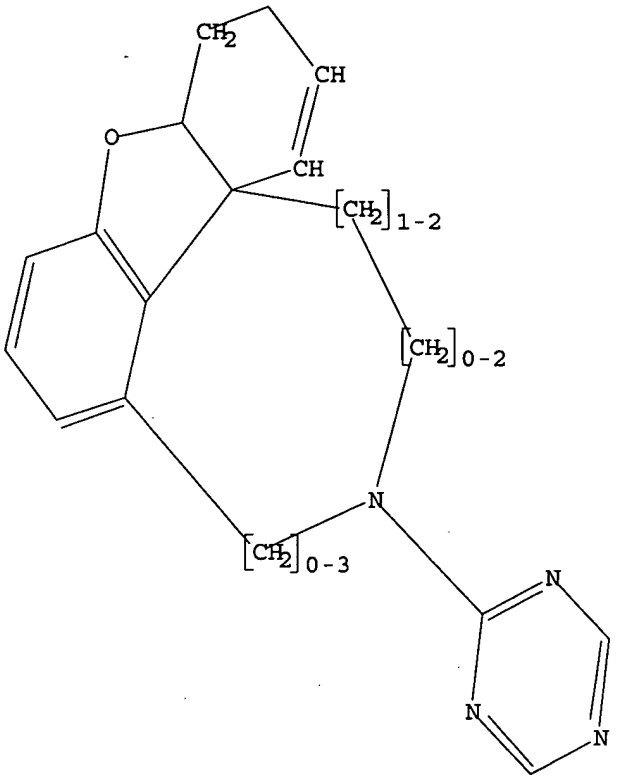


ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 25 26 27 28 29 30
chain bonds :
16-25
ring bonds :
1-2 1-5 2-3 2-10 3-4 3-13 3-14 4-5 4-6 5-9 6-7 6-17 7-8 8-9 10-11
11-12 12-13 14-15 15-16 16-17 25-26 25-30 26-27 27-28 28-29 29-30
exact/norm bonds :
1-2 1-5 2-3 2-10 3-4 3-13 3-14 6-17 10-11 11-12 12-13 14-15 15-16
16-17 16-25
normalized bonds :
4-5 4-6 5-9 6-7 7-8 8-9 25-26 25-30 26-27 27-28 28-29 29-30
isolated ring systems :
containing 25 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 25:Atom 26:Atom
27:Atom 28:Atom 29:Atom 30:Atom

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

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FULL SCREEN SEARCH COMPLETED -    375 TO ITERATE

100.0% PROCESSED      375 ITERATIONS                          7 ANSWERS
SEARCH TIME: 00.00.01

L2             7 SEA SSS FUL L1

=> fil caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               161.33     161.54

FILE 'CAPLUS' ENTERED AT 11:58:27 ON 18 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1907 - 18 Jul 2005 VOL 143 ISS 4
FILE LAST UPDATED: 17 Jul 2005 (20050717/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l2
L3 3 L2

=> d ibib abs hitstr tot

L3 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:300305 CAPLUS
DOCUMENT NUMBER: 142:374012
TITLE: Preparation of N-alkylgalanthamines and related compounds for the treatment of central nervous system diseases
INVENTOR(S): Czollner, Laszlo; Kaelz, Beate; Welzig, Stefan; Frantsits, Werner J.; Jordis, Ulrich; Froehlich, Johannes
PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030333	A2	20050407	WO 2004-AT309	20040909
WO 2005030333	A3	20050623		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AT 2003-1538 A 20030929
AT 2004-1174 A 20040712

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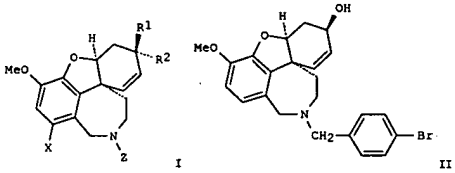
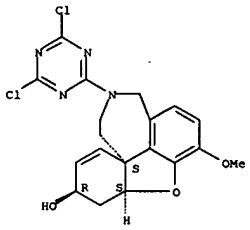


AB Title compds. I [R1, R2 = H, OH; X = H, Br; Z = CH2CCH; CH2C(CH2)CH3, CO(CH2)nCl, etc.; n = 0-6] and their pharmaceutically acceptable salts were prepd. For example, 4-bromobenzyl bromide N-alkylation of (-)-norgalanthamine, afforded alkylgalanthamine II in 70% yield. In acetylcholinesterase inhibition assays, 60-examples of compds. I exhibited IC50 values ranging from 0.016->100 μM, e.g., the IC50 value of alkylgalanthamine II was 0.016 μM. Compds. I are claimed to be useful for the treatment of Alzheimer's disease.

IT 849371-01-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N-alkylgalanthamines and related compds. for the treatment of central nervous system diseases)

RN 849371-01-3 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(4,6-dichloro-1,3,5-triazin-2-yl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:300304 CAPLUS
DOCUMENT NUMBER: 142:367688
TITLE: Use of galanthamine and the derivatives thereof in the production of medicaments for the treatment of postoperative delirium
INVENTOR(S): Bodenteich, Angelika; Frantsits, Werner J.; Pirich, Eberhard; Czollner, Laszlo
PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030332	A2	20050407	WO 2004-AT251	20040712
WO 2005030332	A3	20050602		

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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AT 2003-1538 A 20030929

OTHER SOURCE(S): MARPAT 142:367688

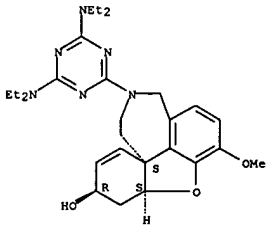
AB The invention discloses the use of galanthamine and the cholinergically active derivs. thereof in the production of medicaments for preventive treatment of postoperative delirium and/or subsyndronal postoperative delirium. Galanthamine, the galanthamine derivative(4aS,6R,8aS)-6-hydroxy-3-methoxy-11-methyl-4a,5,9,10-tetrahydro-6H-benzofuro[3a,3,2-ef][2]benzazepinium bromide, and analogous salts, hydrates or solvates are suited for use according to the invention.

IT 365570-33-8 849232-80-0
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(galanthamine and galanthamine derivs. for treatment of postoperative delirium)

RN 365570-33-8 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4,6-bis(diethylamino)-1,3,5-triazin-2-yl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

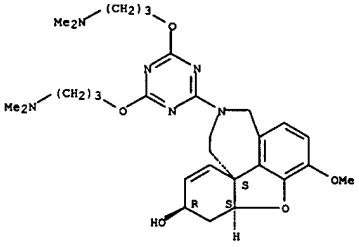
Relative stereochemistry.

L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 849232-80-0 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4,6-bis[3-(dimethylamino)propoxy]-1,3,5-triazin-2-yl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:747793 CAPLUS
DOCUMENT NUMBER: 135:304054
TITLE: Preparation of galanthamine analogs for pharmaceutical use as acetyl- and butyrylcholinesterase inhibitors
INVENTOR(S): Jordis, Ulrich; Froehlich, Johannes; Treu, Matthias; Hirnschall, Manfred; Czollner, Laszlo; Kaelz, Beate; Welzig, Stefan
PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria
SOURCE: PCT Int. Appl., 285 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074820	A1	20011011	WO 2001-AT82	20010322
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2368966	AA	20011011	CA 2001-2368966	20010322
EP 1181294	A1	20020227	EP 2001-914813	20010322
EP 1181294	B1	20040331		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2001005563	A	20020402	BR 2001-5563	20010322
JP 2003529602	T2	20031007	JP 2001-572510	20010322
NZ 516302	A	20040227	NZ 2001-516302	20010322
AT 263171	E	20040415	AT 2001-914813	20010322
PT 1181294	T	20040730	PT 2001-914813	20010322
ES 2215885	T3	20041016	ES 2001-1914813	20010322
RU 2241001	C2	20041127	RU 2001-135839	20010322
BG 106155	A	20020830	BG 2001-106155	20011128
NO 2001005857	A	20020129	NO 2001-5857	20011130
US 2003199493	A1	20031023	US 2002-980025	20020318
HK 1045990	A1	20050128	HK 2002-106231	20020823

PRIORITY APPLN. INFO.: AT 2000-546 A 20000331
AT 2001-238 A 20010215
EP 2001-914813 A 20010322
WO 2001-AT82 W 20010322

OTHER SOURCE(S): MARPAT 135:304054
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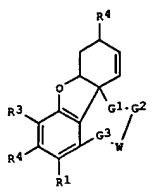
L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)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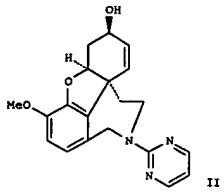

II

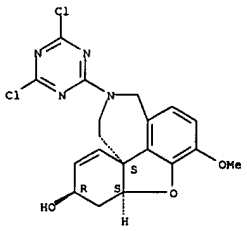
AB Galanthamine derivs. and analogs, such as I [R1, R2 = H, Cn, OH, SH, NO2, SO3H, PO3H, NH2, halogen, etc.; R3 = OH, OMe; R4 = OH, alkyloxy, alkenyloxy, alkynyloxy, cycloalkyloxy, aryloxy, etc.; G1, G2, G3 = CH2, (CH2)2, (CH2)3, CH(OH), etc.; W = CH2, NR5, etc.; R5 = alkyl, acyl, aryl, etc.], were prepared for therapeutic use as acetyl- and butyrylcholinesterase inhibitors. Thus, (±)-galanthamine derivative II was prepared in 80.8% yield by condensation of (±)-norgalanthamine with 2-chloropyrimidine using NaHCO3 in EtOH. The prepared galanthamine derivs. and analogs were tested for acetyl- and butyrylcholinesterase inhibiting activity.

IT **365570-32-7P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of galanthamine analogs for pharmaceutical use as acetyl- and butyrylcholinesterase inhibitors)

RN 365570-32-7 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(4,6-dichloro-1,3,5-triazin-2-yl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

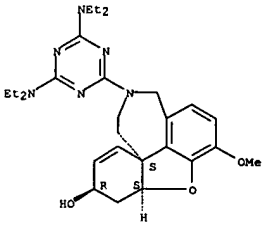
L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **365570-33-8P 365570-34-9P 365570-35-0P 365570-36-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of galanthamine analogs for pharmaceutical use as acetyl- and butyrylcholinesterase inhibitors)

RN 365570-33-8 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4,6-bis(diethylamino)-1,3,5-triazin-2-yl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

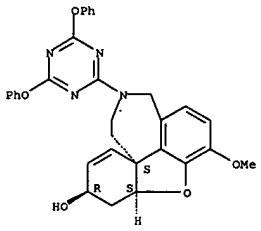
Relative stereochemistry.



RN 365570-34-9 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(4,6-diphenoxy-1,3,5-triazin-2-yl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

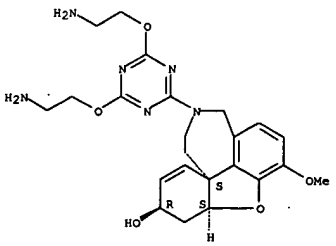
L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

Relative stereochemistry.



RN 365570-35-0 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4,6-bis(2-aminoethoxy)-1,3,5-triazin-2-yl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

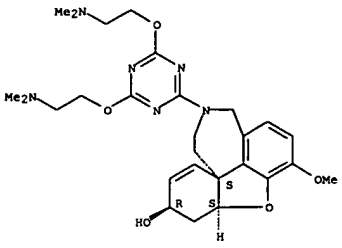
Relative stereochemistry.



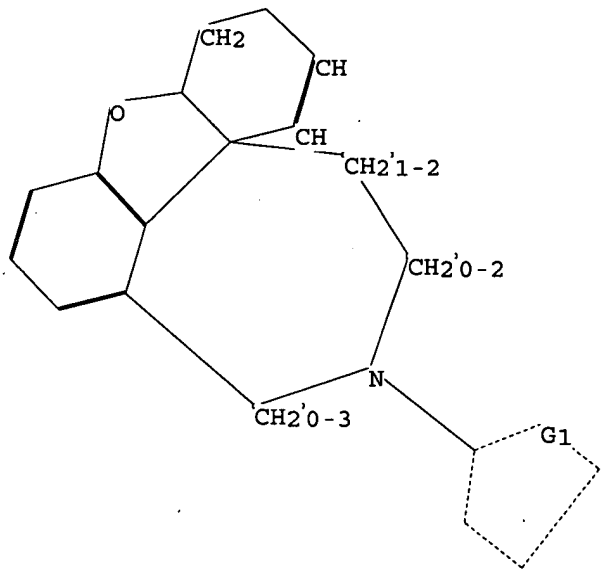
RN 365570-36-1 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4,6-bis[2-(dimethylamino)ethoxy]-1,3,5-triazin-2-yl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

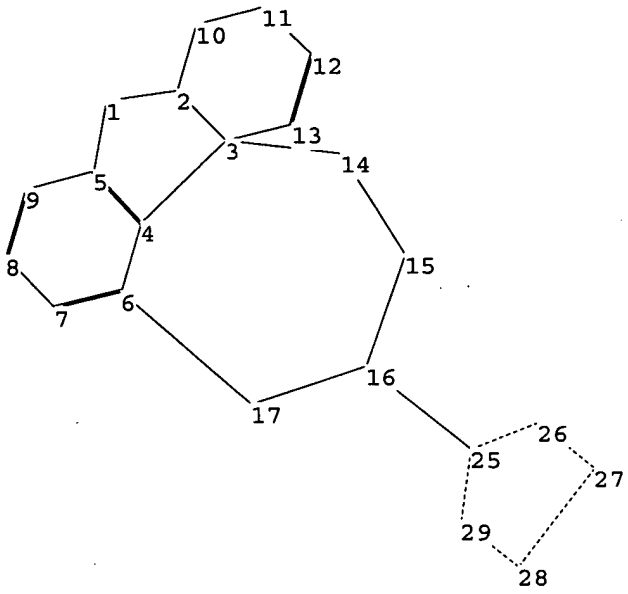
Relative stereochemistry.

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT





ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 25 26 27 28 29
chain bonds :
16-25
ring bonds :
1-2 1-5 2-3 2-10 3-4 3-13 3-14 4-5 4-6 5-9 6-7 6-17 7-8 8-9 10-11
11-12 12-13 14-15 15-16 16-17 25-26 25-29 26-27 27-28 28-29
exact/norm bonds :
1-2 1-5 2-3 2-10 3-4 3-13 3-14 6-17 10-11 11-12 12-13 14-15 15-16
16-17 16-25 25-26 25-29 26-27 27-28 28-29
normalized bonds :
4-5 4-6 5-9 6-7 7-8 8-9
isolated ring systems :
containing 25 :

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 25:Atom 26:Atom
27:Atom 28:Atom 29:Atom

L4 STRUCTURE UPLOADED

=> d
L4 HAS NO ANSWERS

L4 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l4 ful
FULL SEARCH INITIATED 12:04:10 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 13275 TO ITERATE

100.0% PROCESSED 13275 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

L5 1 SEA SSS FUL L4

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	161.33	341.74

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-2.19

FILE 'CAPLUS' ENTERED AT 12:04:15 ON 18 JUL 2005
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FILE COVERS 1907 - 18 Jul 2005 VOL 143 ISS 4
FILE LAST UPDATED: 17 Jul 2005 (20050717/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l5
L6 2 L5

=> d ibib abs hitstr tot

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:300304 CAPLUS
DOCUMENT NUMBER: 142:367688
TITLE: Use of galanthamine and the derivatives thereof in the production of medicaments for the treatment of postoperative delirium
INVENTOR(S): Bodenteich, Angelika; Frantsits, Werner J.; Pirich, Eberhard; Czollner, Laszlo
PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030332	A2	20050407	WO 2004-AT251	20040712
WO 2005030332	A3	20050602		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AT 2003-1538 A 20030929

OTHER SOURCE(S): MARPAT 142:367688

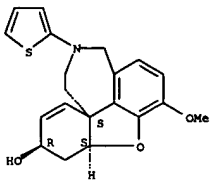
AB The invention discloses the use of galanthamine and the cholinergically active derivs. thereof in the production of medicaments for preventive treatment of postoperative delirium and/or subsyndronal postoperative delirium. Galanthamine, the galanthamine derivative(4aS,6R,8aS)-6-hydroxy-3-methoxy-11-methyl-4a,5,9,10-tetrahydro-6H-benzofuro[3a,3,2-ef][2]benzazepinium bromide, and analogous salts, hydrates or solvates are suited for use according to the invention.

IT **365570-63-4**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(galanthamine and galanthamine derivs. for treatment of postoperative delirium)

RN 365570-63-4 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-thienyl)-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:747793 CAPLUS
DOCUMENT NUMBER: 135:304054
TITLE: Preparation of galanthamine analogs for pharmaceutical use as acetyl- and butyrylcholinesterase inhibitors
INVENTOR(S): Jordis, Ulrich; Froehlich, Johannes; Treu, Matthias; Hirnschall, Manfred; Czollner, Laszlo; Kaelz, Beate; Welzig, Stefan
PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria
SOURCE: PCT Int. Appl., 285 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

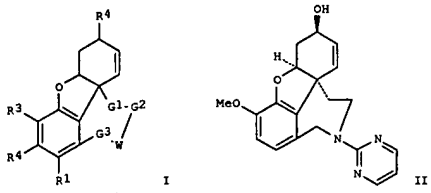
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074820	A1	20011011	WO 2001-AT82	20010322
CA 2368966	AA	20011011	CA 2001-2368966	20010322
EP 1181294	A1	20020227	EP 2001-914813	20010322
EP 1181294	B1	20040331		
BR 2001005563	A	20020402	BR 2001-5563	20010322
JP 2003529602	T2	20031007	JP 2001-572510	20010322
NZ 516302	A	20040227	NZ 2001-516302	20010322
AT 263171	E	20040415	AT 2001-914813	20010322
PT 1181294	T	20040730	PT 2001-914813	20010322
ES 2215885	T3	20041016	ES 2001-1914813	20010322
RU 2241001	C2	20041127	RU 2001-135839	20010322
BG 106155	A	20020830	BG 2001-106155	20011128
NO 2001005857	A	20020129	NO 2001-5857	20011130
US 2003199493	A1	20031023	US 2002-980025	20020318
HK 1045990	A1	20050128	HK 2002-106231	20020823

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.:
AT 2000-546 A 20000331
AT 2001-238 A 20010215
EP 2001-914813 A 20010322
WO 2001-AT82 W 20010322

OTHER SOURCE(S): MARPAT 135:304054
GI

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



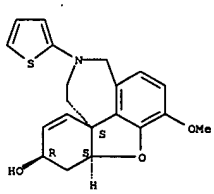
I II

AB Galanthamine derivs. and analogs, such as I [R1, R2 = H, Cn, OH, SH, NO2, SO3H, PO3H, NH2, halogen, etc.; R3 = OH, OMe; R4 = OH, alkyloxy, alkenyloxy, alkynyloxy, cycloalkyloxy, aryloxy, etc.; G1, G2, G3 = CH2, (CH2)2, (CH2)3, CH(OH), etc.; W = CH2, NR5, etc.; R5 = alkyl, acyl, aryl, etc.], were prepared for therapeutic use as acetyl- and butyrylcholinesterase inhibitors. Thus, (±)-galanthamine derivative II was prepared in 80.8% yield by condensation of (±)-norgalanthamine with 2-chloropyrimidine using NaHCO3 in EtOH. The prepared galanthamine derivs. and analogs were tested for acetyl- and butyrylcholinesterase inhibiting activity.

IT **365570-63-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of galanthamine analogs for pharmaceutical use as acetyl- and butyrylcholinesterase inhibitors)

RN 365570-63-4 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-thienyl)-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

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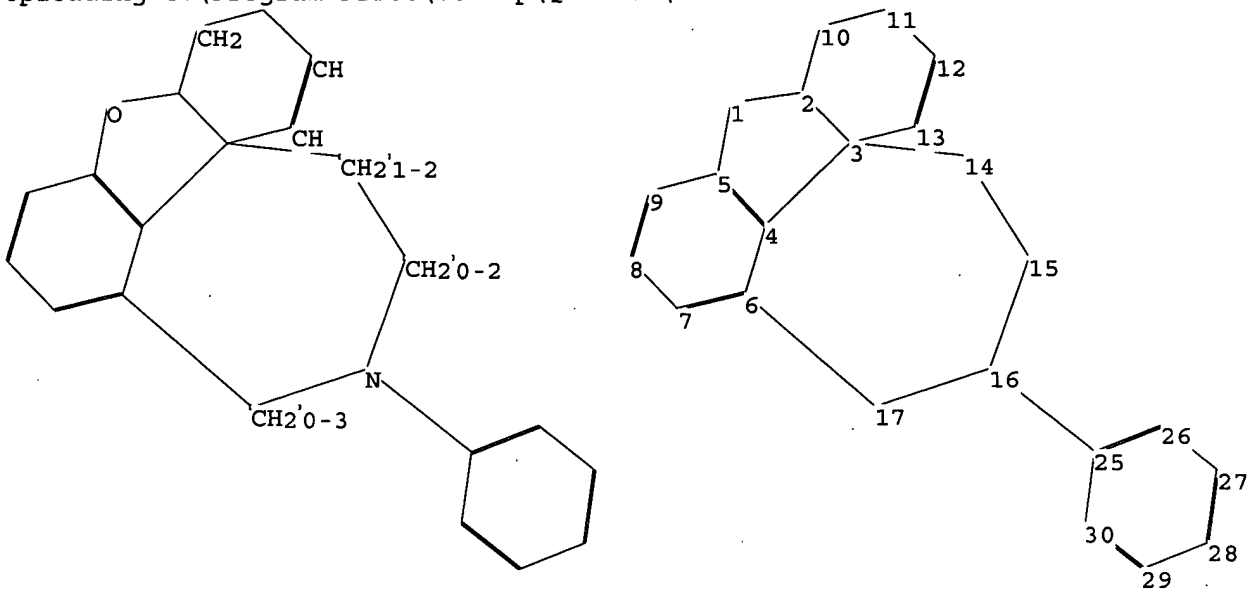

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chain bonds :
16-25
ring bonds :
1-2 1-5 2-3 2-10 3-4 3-13 3-14 4-5 4-6 5-9 6-7 6-17 7-8 8-9 10-11
11-12 12-13 14-15 15-16 16-17 25-26 25-30 26-27 27-28 28-29 29-30
exact/norm bonds :
1-2 1-5 2-3 2-10 3-4 3-13 3-14 6-17 10-11 11-12 12-13 14-15 15-16
16-17 16-25
normalized bonds :
4-5 4-6 5-9 6-7 7-8 8-9 25-26 25-30 26-27 27-28 28-29 29-30
isolated ring systems :
containing 25 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 25:Atom 26:Atom
27:Atom 28:Atom 29:Atom 30:Atom

L7 STRUCTURE UPLOADED

=> d
L7 HAS NO ANSWERS

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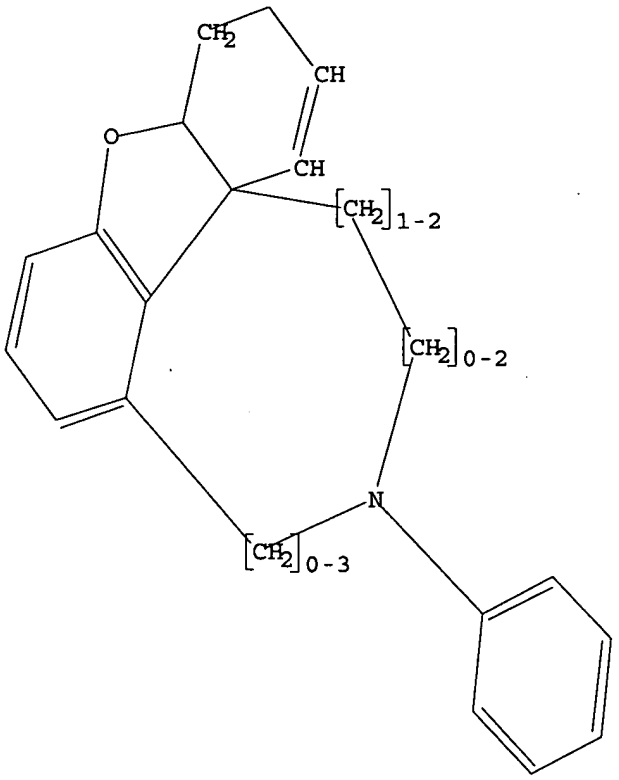

Structure attributes must be viewed using STN Express query preparation.

=> s l7 ful
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Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 12:05:06 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 10291 TO ITERATE

100.0% PROCESSED 10291 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

L8 1 SEA SSS FUL L7

L9 2 L8

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:300304 CAPLUS
DOCUMENT NUMBER: 142:367688
TITLE: Use of galanthamine and the derivatives thereof in the production of medicaments for the treatment of postoperative delirium
INVENTOR(S): Bodenteich, Angelika; Frantsits, Werner J.; Pirich, Eberhard; Czollner, Laszlo
PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030332	A2	20050407	WO 2004-AT251	20040712
WO 2005030332	A3	20050602		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AT 2003-1538 A 20030929

OTHER SOURCE(S): MARPAT 142:367688

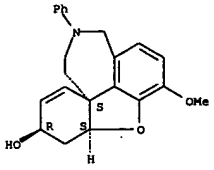
AB The invention discloses the use of galanthamine and the cholinergically active derivs. thereof in the production of medicaments for preventive treatment of postoperative delirium and/or subsyndronal postoperative delirium. Galanthamine, the galanthamine derivative(4aS,6R,8aS)-6-hydroxy-3-methoxy-11-methyl-4a,5,9,10-tetrahydro-6H-benzofuro[3a,3,2-ef][2]benzazepinium bromide, and analogous salts, hydrates or solvates are suited for use according to the invention.

IT **365570-62-3**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(galanthamine and galanthamine derivs. for treatment of postoperative delirium)

RN 365570-62-3 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-phenyl-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:747793 CAPLUS
DOCUMENT NUMBER: 135:304054
TITLE: Preparation of galanthamine analogs for pharmaceutical use as acetyl- and butyrylcholinesterase inhibitors
INVENTOR(S): Jordis, Ulrich; Froehlich, Johannes; Treu, Matthias; Hirnschall, Manfred; Czollner, Laszlo; Kaelz, Beate; Welzig, Stefan
PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria
SOURCE: PCT Int. Appl., 285 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074820	A1	20011011	WO 2001-AT82	20010322
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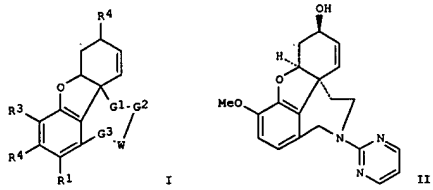
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2368966	AA	20011011	CA 2001-2368966	20010322
EP 1181294	A1	20020227	EP 2001-914813	20010322
EP 1181294	B1	20040331		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2001005563	A	20020402	BR 2001-5563	20010322
JP 2003529602	T2	20031007	JP 2001-572510	20010322
NZ 516302	A	20040227	NZ 2001-516302	20010322
AT 263171	E	20040415	AT 2001-914813	20010322
PT 1181294	T	20040730	PT 2001-914813	20010322
ES 2215885	T3	20041016	ES 2001-1914813	20010322
RU 2241001	C2	20041127	RU 2001-135839	20010322
BG 106155	A	20020830	BG 2001-106155	20011128
NO 2001005857	A	20020129	NO 2001-5857	20011130
US 2003199493	A1	20031023	US 2002-980025	20020318
HK 1045990	A1	20050128	HK 2002-106231	20020823

PRIORITY APPLN. INFO.:
AT 2000-546 A 20000331
AT 2001-238 A 20010215
EP 2001-914813 A 20010322
WO 2001-AT82 W 20010322

OTHER SOURCE(S): MARPAT 135:304054
GI

L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

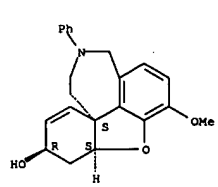


AB Galanthamine derivs. and analogs, such as I [R1, R2 = H, Cn, OH, SH, NO2, SO3H, PO3H, NH2, halogen, etc.; R3 = OH, OMe; R4 = OH, alkyloxy, alkenyloxy, alkynyloxy, cycloalkyloxy, aryloxy, etc.; G1, G2, G3 = CH2, (CH2)2, (CH2)3, CH(OH), etc.; W = CH2, NR5, etc.; R5 = alkyl, acyl, aryl, etc.], were prepared for therapeutic use as acetyl- and butyrylcholinesterase inhibitors. Thus, (±)-galanthamine derivative II was prepared in 80.8% yield by condensation of (±)-norgalanthamine with 2-chloropyrimidine using NaHCO3 in EtOH. The prepared galanthamine derivs. and analogs were tested for acetyl- and butyrylcholinesterase inhibiting activity.

IT **365570-62-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of galanthamine analogs for pharmaceutical use as acetyl- and butyrylcholinesterase inhibitors)

RN 365570-62-3 CAPLUS
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-phenyl-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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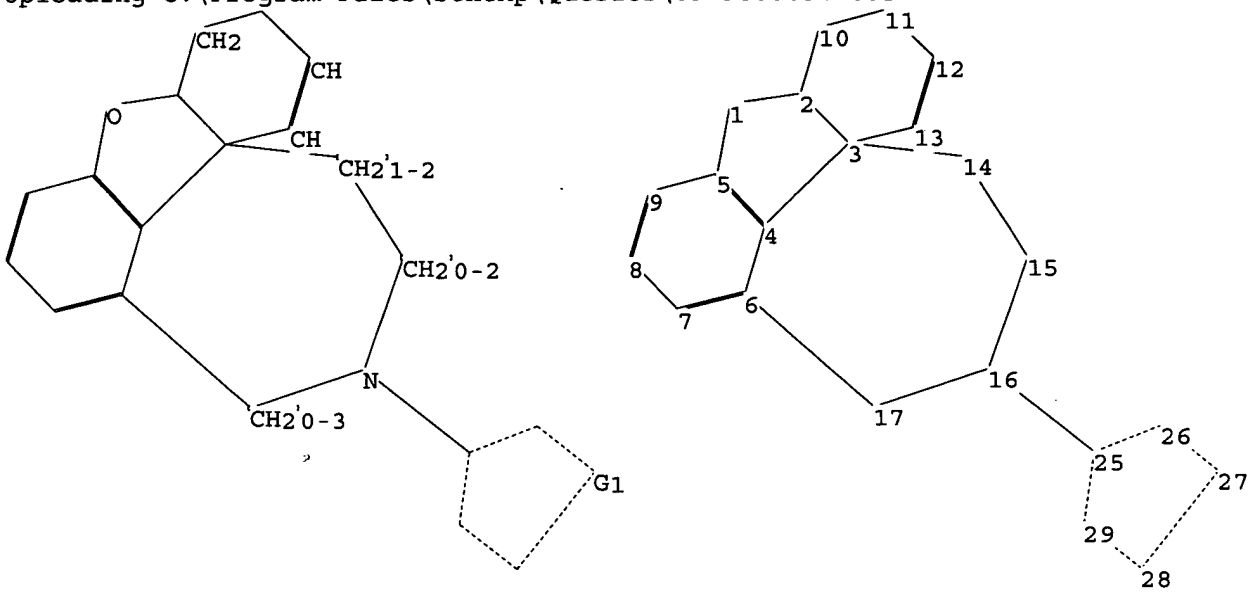

ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 25 26 27 28 29
chain bonds :
16-25
ring bonds :
1-2 1-5 2-3 2-10 3-4 3-13 3-14 4-5 4-6 5-9 6-7 6-17 7-8 8-9 10-11
11-12 12-13 14-15 15-16 16-17 25-26 25-29 26-27 27-28 28-29
exact/norm bonds :
1-2 1-5 2-3 2-10 3-4 3-13 3-14 6-17 10-11 11-12 12-13 14-15 15-16
16-17 16-25 25-26 25-29 26-27 27-28 28-29
normalized bonds :
4-5 4-6 5-9 6-7 7-8 8-9
isolated ring systems :
containing 25 :

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 25:Atom 26:Atom
27:Atom 28:Atom 29:Atom

L10 STRUCTURE UPLOADED

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L10 HAS NO ANSWERS
L10 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l10 ful
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Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

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100.0% PROCESSED 13275 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

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L12 0 L11

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Executing the logoff script...

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.45	685.51

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-5.11

STN INTERNATIONAL LOGOFF AT 12:06:38 ON 18 JUL 2005